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| 10/579,156 | 05/12/2006 | Petrus Desiderius Victor Van Der Stok | US030448 | 1174 |

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

| EXAMINER | |
|---|---|
| DIEP, NHON THANH | |

| ART UNIT | PAPER NUMBER |
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| 2621 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/579,156 | VAN DER STOK ET AL. | |
| | Examiner | Art Unit | |
| | Nhon T. Diep | 2621 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

**1.** Claim 1 is objected to because of the following informalities: Line 8, after received layers", a period should be inserted (claim must end with a period). Appropriate correction is required.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/497,866. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-12 of the present application encompass claims 1-9 of the copending Application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-4 and 9-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding to claims 1-2, which recites “media frame, “processing application” “resources” “quality” and “milestone” which could be reasonably interpreted as mental activities, abstract ideas, general concept or mental steps, and therefore, the claims are directed to a non-statutory subject matter.

Regarding to claim 3, which recites Markov model, which is a mathematical concepts, and is therefore directed to a non-statutory subject matter.

Regarding to claim 9, which recites a computer program product designed to perform the method according to claim 1, claim 9 is a computer program per se and is directed to non-statutory subject matter.

Regarding to claim 10, which recites a storage device, whereas the storage device is defined as any device able to receive or reproduce a television signal, which is non-statutory and include signal based on the broadest reasonable interpretation of the claim.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 (similarly claim 5) line 8 recites the limitation "the" in “the number of received layers”. There is insufficient antecedent basis for this limitation in the claim;

Claim 1, lines 1 and 7, both recite an output image, while line 4 recites “the output image”, and this presents a multiple antecedent basis;

Claim 2, line 3, recites “the” in “the output image”, and this presents a multiple antecedent basis.

8. The examiner will interprets the claims as broadly as possible read in light of the specification for art consideration, and requests that the applicants review the claim set in its entirety to comply with 35 USC § 112.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-12 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 03/051039 A2, cited by the applicants.

The WO'039 discloses a method and apparatus for smoothing overall quality of video transported over a wireless medium comprising the same method of setting a quality level of an output image of a media frame by a media processing application (page 1, ln. 21 – page 2, ln. 4), comprising the steps of:

determining an amount of resources to be used for processing the media frame (page 1, ln. 25 – page 2, ln. 9);

controlling the quality level of the output image (page 3, ln. 20 – page 4, ln. 16) based on

i. relative progress of the media processing application calculated at a milestone (page 5, ln. 2-4),

ii. a maximal quality level that is possible to choose for the output image (page 7, ln. 20-22),

iii. a previously used quality level of an output image (page 8, ln. 1-2), and

iv. a maximum quality level based on the number of received layers (page 7, ln. 23-24) as specified in claims 1 and 5; wherein the quality level is chosen based on a minimum of the highest quality level possible for processing the next frame and a highest quality level required to maintain the quality of the output image (page 5, ln. 2-15) as specified in claims 2 and 7; wherein: the step of controlling the quality level of the media frame is modeled as a Markov decision problem comprising a set of states, a set of decisions, a set of transition probabilities and a set of revenues; solving the Markov decision problem to derive an optimal strategy; and determining the number of layers of the media frame that are decoded based upon this solution further comprising the steps of: defining the set of states to comprise the relative progress of the media processing application at a milestone and the previously used quality level; defining the set of decisions to comprise a plurality of quality levels that the media processing application can provide; defining the set of transition probabilities to comprise a probability that a transition is made from a state of the set of states at a current milestone to an other state of the set of states at a next milestone for a given quality level of the plurality of quality levels; and defining the set of revenues to comprise a positive revenue related to a quality level of the media frame, a negative revenue related to a deadline miss and a negative revenue related to a quality level change (page 5, ln. 16-19, page 6, ln. 10-20, page 7, ln. 6, page 8, ln. 9-10, page 10, ln. 3-5, 24-26, page 11, ln. 1, 21-25) as specified in claims 3-4 and 7-8; a computer program product designed to perform the method according to claim 1 (page 18, ln. 13-15) as specified in claim 9; a storage

device comprising a computer program product according to claim 9 (fig. 8, el. 1202, fig. 9, el. 1304) as specified in claim 10; a television set comprising a system according claim 5 (page 4, ln. 3) as specified in claim 11; and a set-top box comprising a system according claim 5 (page 4, ln. 3) as specified in claim 12.

***Conclusion***

**11.** The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Werbos (US 6,169,981 B1) discloses 3-brain architecture for an intelligent decision and control system.

b. Vorbach et al (US 7,657,861 B2) discloses a method and device for processing video data.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nhon T Diep/
Primary Examiner, Art Unit 2621